LISTING OF THE CLAIMS

The following listing of the claims is provided for convenience. No amendment is intended.

1–55. (Canceled)

56. (Previously presented) A switch comprising:

a first port for connection to a first external device and capable of transferring packets and operating using a plurality of virtual channels, wherein virtual channels designate logical subdivisions of a link and are not used for routing of packets;

a second port for connection to a second external device and capable of transferring packets and operating using a plurality of virtual channels;

switching logic connected to said first port and said second port for transferring packets between said first and second ports;

control logic coupled to said first port and said second port to configure said first port to operate using a first number of virtual channels and said second port to operate using a second number of virtual channels, wherein the first number is not equal to the second number; and

remapping logic coupled to said first port, said second port and said switching logic, said remapping logic including and utilizing a table to remap the first number of virtual channels to the second number of virtual channels.

57. (Previously presented) The switch of claim 56, wherein said table includes an incoming table to remap from the first number of virtual channels and an outgoing table to remap to the second number of virtual channels.

58. (Previously presented) The switch of claim 56, wherein the control logic is configured to determine the first number based on data sent by the first external device and configured to determine the second number based on data sent by the second external device.

59. (Previously presented) The switch of claim 56, wherein the control logic is configured to determine the first number and second number during initialization.

60. (Previously presented) The switch of claim 56, wherein the switch is a Fibre Channel switch.

61. (Previously presented) The switch of claim 60, wherein the first external device and the second external device are Fibre Channel switches.

62. (Previously presented) A network comprising:

a first external device;

a second external device; and

a switch including:

a first port connected to said first external device and capable of transferring packets and operating using a plurality of virtual channels, wherein virtual channels designate logical subdivisions of a link and are not used for routing of packets;

a second port connected to said second external device and capable of transferring packets and operating using a plurality of virtual channels;

switching logic connected to said first port and said second port for transferring packets between said first and second ports;

control logic coupled to said first port and said second port to configure said first port to operate using a first number of virtual channels and said second port to operate using a second number of virtual channels, wherein the first number is not equal to the second number; and

remapping logic coupled to said first port, said second port and said switching logic, said remapping logic including and utilizing a table to remap the first number of virtual channels to the second number of virtual channels.

63. (Previously presented) The network of claim 62, wherein said table includes an incoming table to remap from the first number of virtual channels and an outgoing table to remap to the second number of virtual channels.

64. (Previously presented) The network of claim 62, wherein the control logic is configured to determine the first number based on data sent by the first external device and configured to determine the second number based on data sent by the second external device.

65. (Previously presented) The network of claim 62, wherein the control logic is configured to determine the first number and second number during initialization.

66. (Previously presented) The network of claim 62, wherein said switch is a Fibre Channel switch.

67. (Previously presented) The network of claim 66, wherein said first external device and said second external device are Fibre Channel switches

68. (Previously presented) A method for operating a switch, the method comprising:

transferring packets at a first port for connection to a first external device and capable of operating using a plurality of virtual channels, wherein virtual channels designate logical subdivisions of a link and are not used for routing of packets;

transferring packets at a second port for connection to a second external device and capable of operating using a plurality of virtual channels;

transferring packets between the first port and the second port;

configuring the first port to operate using a first number of virtual channels and the second port to operate using a second number of virtual channels, wherein the first number is not equal to the second number; and

remapping the first number of virtual channels to the second number of virtual channels utilizing a table to perform the remapping.

69. (Previously presented) The method of claim 68, wherein the table includes an incoming table to remap from the first number of virtual channels and an outgoing table to remap to the second number of virtual channels.

70. (Previously presented) The method of claim 68, wherein the first number is determined based on data sent by the first external device and the second number is determined based on data sent by the second external device.

71. (Previously presented) The method of claim 68, wherein the first number and second number are determined and the first and second ports are configured during initialization.

72. (Previously presented) The method of claim 68, wherein the switch is a Fibre Channel switch.

73. (Previously presented) The method of claim 72, wherein the first external device and the second external device are Fibre Channel switches.

74. (Previously presented) A switch comprising:

a first port for connection to a first external device and capable of transferring packets and operating using a plurality of virtual channels, wherein virtual channels designate logical subdivisions of a link and are not used for routing of packets;

a second port for connection to a second external device and capable of transferring packets;

switching logic connected to said first port and said second port for transferring packets between said first and second ports and capable of operating using a plurality of virtual channels;

control logic coupled to said first port and said switching logic to configure said first port to operate using a first number of virtual channels and said switching logic to operate using a second number of virtual channels, wherein the first number is not equal to the second number; and

remapping logic coupled to said first port and said switching logic, said remapping logic including and utilizing a table to remap the first number of virtual channels to the second number of virtual channels.

75. (Previously presented) The switch of claim 74, wherein said table includes an incoming table to remap from the first number of virtual channels and an outgoing table to remap to the second number of virtual channels.

76. (Previously presented) The switch of claim 74, wherein the control logic is configured to determine the first number based on data sent by the first external device.

77. (Previously presented) The switch of claim 74, wherein the control logic is configured to determine the first number during initialization.

78. (Previously presented) The switch of claim 74, wherein the switch is a Fibre Channel switch.

79. (Previously presented) The switch of claim 78, wherein the first external device and the second external device are Fibre Channel switches.

80. (Previously presented) A network comprising:

a first external device;

a second external device; and

a switch including:

a first port connected to said first external device and capable of transferring packets and operating using a plurality of virtual channels, wherein virtual channels designate logical subdivisions of a link and are not used for routing of packets;

a second port connected to said second external device and capable of transferring packets;

switching logic connected to said first port and said second port for transferring packets between said first and second ports and capable of operating using a plurality of virtual channels;

control logic coupled to said first port and said switching logic to configure said first port to operate using a first number of virtual channels and said switching logic to operate using a second number of virtual channels, wherein the first number is not equal to the second number; and

remapping logic coupled to said first port and said switching logic, said remapping logic including and utilizing a table to remap the first number of virtual channels to the second number of virtual channels.

81. (Previously presented) The network of claim 80, wherein said table includes an incoming table to remap from the first number of virtual channels and an outgoing table to remap to the second number of virtual channels.

82. (Previously presented) The network of claim 80, wherein the control logic is configured to determine the first number based on data sent by the first external device.

83. (Previously presented) The network of claim 80, wherein the control logic is configured to determine the first number during initialization.

84. (Previously presented) The network of claim 80, wherein said switch is a Fibre Channel switch.

85. (Previously presented) The network of claim 84, wherein said first external device and said second external device are Fibre Channel switches

86. (Previously presented) A method for operating a switch, the method comprising:

transferring frames at a first port for connection to a first external device and capable of operating using a plurality of virtual channels, wherein virtual channels designate logical subdivisions of a link and are not used for routing of packets;

transferring frames at a second port for connection to a second external device;

transferring frames between the first port and the second port and using a plurality of virtual channels;

configuring the first port to operate using a first number of virtual channels and the transfer between the first and second port to operate using a second number of virtual channels, wherein the first number is not equal to the second number; and

remapping the first number of virtual channels to the second number of virtual channels utilizing a table to perform the remapping.

87. (Previously presented) The method of claim 86, wherein the table includes an incoming table to remap from the first number of virtual channels and an outgoing table to remap to the second number of virtual channels.

88. (Previously presented) The method of claim 86, wherein the first number is determined based on data sent by the first external device.

89. (Previously presented) The method of claim 86, wherein the first number is determined and the first port is configured during initialization.

90. (Previously presented) The method of claim 86, wherein the switch is a Fibre Channel switch.

91. (Previously presented) The method of claim 90, wherein the first external device and the second external device are Fibre Channel switches.